

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant: Leonard Forbes et al.

Title: TECHNIQUE TO CONTROL TUNNELING CURRENTS IN DRAM CAPACITORS, CELLS,  
AND DEVICES

Docket No.: 1303.017US2

Filed: November 25, 2003

Examiner: Unknown

Serial No.: 10/721585

Due Date: N/A

Group Art Unit: 2825

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

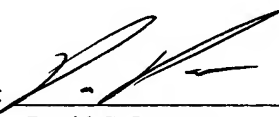


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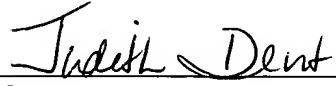
- ☒ A return postcard.
- ☒ A Supplemental Information Disclosure Statement (2 pgs.), a Form 1449 (1 pg.), and a copy of one of 18 cited documents.

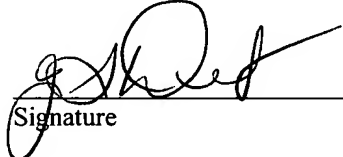
If not provided for in a separate paper filed herewith, Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
Customer Number 21186

By:   
Atty: David C. Peterson  
Reg. No. 47,857

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19<sup>th</sup> day of May, 2004.

  
Name

  
Signature

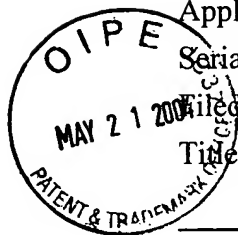
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
(GENERAL)

S/N 10/721585

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Leonard Forbes et al. Examiner: Unknown  
Serial No.: 10/721585 Group Art Unit: 2825  
Filed: November 25, 2003 Docket: 1303.017US2  
Title: TECHNIQUE TO CONTROL TUNNELING CURRENTS IN DRAM  
CAPACITORS, CELLS, AND DEVICES



COMMUNICATION CONCERNING RELATED APPLICATION(S)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
10/042924	January 9, 2002	303.684US2	P-CHANNEL DYNAMIC FLASH MEMORY CELLS WITH ULTRATHIN TUNNEL OXIDES
10/043065	January 9, 2002	303.684US3	P-CHANNEL DYNAMIC FLASH MEMORY CELLS WITH ULTRATHIN TUNNEL OXIDES
10/042925	January 9, 2002	303.684US4	P-CHANNEL DYNAMIC FLASH MEMORY CELLS WITH ULTRATHIN TUNNEL OXIDES
10/786726	February 25, 2004	303.680US3	STATIC NVRAM WITH ULTRA THIN TUNNEL OXIDES

Respectfully submitted,

LEONARD FORBES ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6944

Date

5-18-04

By

David C. Peterson  
Reg. No. 47,857

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Name

Judith L. Dent

Signature



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Leonard Forbes et al.	Examiner:	Unknown
Serial No.:	10/721585	Group Art Unit:	2825
Filed:	November 25, 2003	Docket:	1303.017US2
Title:	TECHNIQUE TO CONTROL TUNNELING CURRENTS IN DRAM CAPACITORS, CELLS, AND DEVICES		

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Serial No :10/721585

Filing Date: November 25, 2003

Title: TECHNIQUE TO CONTROL TUNNELING CURRENTS IN DRAM CAPACITORS, CELLS, AND DEVICES

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The present application is either a U.S. national patent application filed after June 30, 2003 or an international application that entered the national stage under 35 U.S.C. § 371 after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

LEONARD FORBES ET AL.

By their Representatives,

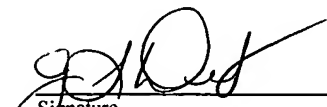
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
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(612) 373-6944

Date 5-18-04

By   
David C. Peterson  
Reg. No. 47,857

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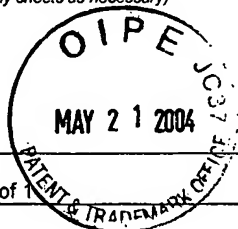
  
Name

  
Signature

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	10/721585
Filing Date	November 25, 2003
First Named Inventor	Forbes, Leonard
Group Art Unit	2825
Examiner Name	Unknown

Sheet 1 of 1

Attorney Docket No: 1303.017US2

**US PATENT DOCUMENTS**

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-2002/0016081A1	02/07/2002	Aloni, E., et al.	438	714	10/15/2001
	US-2003/0001197	01/02/2003	Chang, Y., et al.	257	315	08/30/2002
	US-2003/0201491	10/30/2003	Chung, B.	257	324	05/08/2003
	US-5,408,115	04/18/1995	Chang, K.	257	324	04/04/1994
	US-6,245,613	06/12/2001	Hsu,, et al.			04/24/2000
	US-6,246,089	06/12/2001	Lin, Yai-Fen, et al.	257	315	03/13/2000
	US-6,249,460	06/19/2001	Forbes, Leonard, et al.	365	185.28	02/28/2000
	US-6,265,266	07/24/2001	Dejenfelt, A. T., et al.	438	258	09/27/1996
	US-6,316,316	11/13/2001	Wu, S.	438	260	06/18/1999
	US-6,351,428	02/26/2002	Forbes, Leonard	365	230.06	02/29/2000
	US-6,383,939	05/07/2002	Yang, W., et al.	438	706	08/17/1999
	US-6,384,448	05/07/2002	Forbes, Leonard	257	315	02/28/2000
	US-6,456,535	09/24/2002	Forbes, Leonard, et al.	365	185.28	06/15/2001
	US-6,515,328	02/04/2003	Yang, W., et al.	257	315	02/04/1999
	US-6,583,011	06/24/2003	Xia, L., et al.	438	275	01/11/2000
	US-6,639,835	10/28/2003	Forbes, L.	365	186.14	02/29/2000
	US-6,730,960	05/04/2004	Forbes, L.	257	321	08/30/2001

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T <sup>2</sup>
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**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		TIWARI, SANDIP, "Volatile and Non-Volatile Memories in Silicon with Nano-Crystal Storage", Int'l Electron Devices Meeting: Technical Digest, Washington, DC, (Dec. 1995), 521-524	

**EXAMINER****DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional) <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached